

CLAIMS

1. A magnetic cell, comprising a magnetic particle held on a surface of the cell.

2. The magnetic cell according to Claim 1, wherein the surface and the magnetic particle are bound via a linker, or the surface is bonded via a specific amino acid sequence of the magnetic particle.

3. The magnetic cell according to Claim 2, wherein the surface and the linker are bound by an antigen-antibody reaction.

4. The magnetic cell according to Claim 2 or 3, wherein the linker and the magnetic particle are bound by a chemical bonding.

5. The magnetic cell according to any one of Claims 1 through 4, wherein the particle comprises at least a magnetic material.

6. The magnetic cell according to Claim 5, wherein the magnetic particle also comprises a drug.

7. The magnetic cell according to any one of Claims 1 through 6, wherein the cell is selected from the group consisting of cultured chondrocyte, mesenchymal cell, lymphocyte and cell which expresses integrin.

8. A method for culturing a magnetic cell, comprising the steps of: preparing the magnetic cell according to any one of Claims 1 through 7; and culturing the magnetic cell.

9. A method for retaining a magnetic cell, comprising the steps of: moving the magnetic cell according to any one of Claims 1 through 7 to a disease site in order to place the magnetic cell therein; and retaining the magnetic cell for a long time at the disease site by means of a magnetic field.

10. The method according to Claim 9, wherein the retaining step is accomplished either by applying the magnetic field to the disease site from outside the body or by embedding a magnet inside the body.

11. A method for controlling the activity of a magnetic cell, comprising the
5 steps of:

administering the magnetic cell according to any one of Claims 1 through 7 and a magnetic particle containing a drug to a disease site either simultaneously or separately;

releasing the drug from the magnetic particle.

10 12. The method according to Claim 11, wherein the drug is selected from the group consisting of a bone-forming agent, a cancer therapeutic agent and a dementia therapeutic agent.

13. A method for treating, comprising the steps of:

15 administering the magnetic cell according to any one of Claims 1 through 7 and a magnetic particle containing a drug to a disease site either simultaneously or separately; and

releasing the drug from the magnetic particle.

14. The method according to Claim 13, wherein the drug is selected from the group consisting of a bone-forming agent, a cancer therapeutic agent and a
20 dementia therapeutic agent.